



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,261	07/07/2003	John Taboada	382/103	7790
7590	09/11/2007		EXAMINER	
Dr. John Taboada 12530 Elm Country San Antonio, TX 78230			PERVAN, MICHAEL	
			ART UNIT	PAPER NUMBER
			2629	
			MAIL DATE	DELIVERY MODE
			09/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/614,261	TABOADA, JOHN	
	Examiner	Art Unit	
	Michael Pervan	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 26 June 2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 18-33 is/are pending in the application.
- 4a) Of the above claim(s) 18-25 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 26-33 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 07 July 2003 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 28 is objected to because of the following informalities: redundancy of dependence on claim 26. Since claim 28 depends on claim 27, which depends on claim 26, there is no need to refer “the optically-sensed digitally-autocorrelated navigation chip” back to claim 26 since it already is incorporated by virtue of the dependencies on claims 26-27. Examiner suggests removing the phrase “of claim 26” in line 2 of claim 28. Appropriate correction is required.
2. Claim 31 is objected to because of the following informalities: redundancy of dependence on claim 26. Since claim 31 depends on claim 26, there is no need to refer “the receiving means” back to claim 26 since it already is incorporated by virtue of the dependencies on claims 26. Examiner suggests removing the phrase “of claim 26” in line 3 of claim 31. Appropriate correction is required.
3. Claim 32 is objected to because of the following informalities: redundancy of dependence on claim 26. Since claim 32 depends on claim 31, which depends on claim 26, there is no need to refer “the receiving means” back to claim 26 since it already is incorporated by virtue of the dependencies on claims 26 and 31. Examiner suggests removing the phrase “of claim 26” in line 3 of claim 32. Appropriate correction is required.
4. Claim 33 is objected to because of the following informalities: it depends on claims 31 and 32. Examiner suggests changing dependency from claim 31 in line 1 to

claim 32 and removing the phrase "of claim 32" in line 3 of claim 33. Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 26 and 31-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Kinrot et al (US 6,424,407).

In regards to claim 26, Kinrot discloses an apparatus for controlling a computer by tracking the motion of a body comprising:

- a. a laser (Fig. 3A and col. 26, lines 23-25; laser 32),
- b. a laser-speckle pattern generating means (Fig. 5A; finger 102),
- c. an optically-sensed digitally-autocorrelated navigation chip receiving

means for receiving the laser-speckle pattern (Fig. 3A; detectors 50 and 52), and generating signals to control a computer (col. 40, lines 32-44).

In regards to claim 31, Kinrot discloses the apparatus of Claim 26 where said laser and receiving means are combined as a second rigid unit (chip 82) and arranged such that the laser beam of said laser points to an area in front of but not into the receiving means of Claim 26 (Fig. 3A; as can be seen from the drawing the laser 32

Art Unit: 2629

points in front of the receiving means (detectors 50and 52) but not into receiving means).

In regards to claim 32, Kinrot discloses the second rigid unit of Claim 31 where said laser beam points to an object (finger 102) generating a laser-speckle pattern moving in correspondence to the motion of the object and which enters the receiving means of Claim 26 (Fig. 5A).

In regards to claim 33, Kinrot discloses the second rigid unit of Claim 31 where the output of said optically-sensed digitally-autocorrelated navigation chip communicates computer controlling signals to a computer indicative of the motion of the object of Claim 32 (col. 40, lines 32-44).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 26-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koizumi et al (US 5,883,616) in view of Rallison et al (US 5,945,967).

In regards to claim 26, Koizumi discloses an apparatus for controlling a computer by tracking the motion of a body comprising:

- a. a laser (Fig. 3; light emitting elements 11),

Art Unit: 2629

c. an optically-sensed digitally-autocorrelated navigation chip receiving means for receiving the laser-speckle pattern (Fig. 1; optical signal receiver 2), and generating signals to control a computer (col. 3, lines 53-56).

Koizumi does not disclose a laser-speckle pattern generating means.

Rallison discloses a laser-speckle pattern generating means (Fig. 4A; diffuser 406).

It would have been obvious at the time of invention to modify Koizumi with the teachings of Rallison, laser and laser speckle pattern generating means in one unit, because it reduces or eliminates moiré patterns (col. 7, lines 32-37).

In regards to claim 27, Koizumi does not disclose the apparatus of Claim 26 where said laser and said laser-speckle pattern generating means are combined as a first rigid unit projecting a laser-speckle pattern which moves in correspondence to the movement of the first rigid unit.

Rallison discloses where said laser (coherent light source 402) and said laser-speckle pattern generating means (diffuser 406) are combined as a first rigid unit projecting a laser-speckle pattern which moves in correspondence to the movement of the first rigid unit (Fig. 4A).

It would have been obvious at the time of invention to modify Koizumi with the teachings of Rallison, laser and laser speckle pattern generating means in one unit, because it reduces or eliminates moiré patterns (col. 7, lines 32-37).

In regards to claim 28, Koizumi and Rallison disclose the first rigid unit of Claim 27 where said laser-speckle pattern is projected onto said optically-sensed digitally-

Art Unit: 2629

autocorrelated navigation chip of Claim 26 (Fig. 1; as can be seen from the drawing the laser speckle pattern from the first rigid unit (optical signal transmitter 1) is projected onto optically-sensed digitally-autocorrelated navigation chip (optical signal receiver 2)).

In regards to claim 29, Koizumi and Rallison disclose the first rigid unit of Claim 28 where the output of said optically-sensed digitally-autocorrelated navigation chip (optical signal receiver 2) communicates computer controlling signals to a computer indicative of the motion of the first rigid unit (col. 3, lines 53-56).

In regards to claim 30, Koizumi and Rallison disclose the first rigid unit of Claim 27 where said first rigid unit may be rigidly attached to a further body (headset device 4) thus enabling the computer registering of motion parameters of said further body (Fig. 1).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art (Pelosi US 2002/0175897) is deemed relevant since it is the divisional application to Pelosi (US 6,424,410).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Pervan whose telephone number is (571) 272-0910. The examiner can normally be reached on Monday - Friday between 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2629

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MVP
Aug. 30, 2007

AMR A. AWAD
SUPERVISORY PATENT EXAMINER

